

What Is Claimed Is:

1. A steering system for a vehicle, in particular a hydraulic power-steering system for a motor vehicle, having a steering spindle (2) that connects a steering handle (3) on its one end to a rotary slide valve or rotary piston (4) of a steering valve (5) via a first torsion element (6); having a hydraulic servomotor (7) for actuating an output member (8) of a steering gear (9), a flow of pressurized media into working chambers of the hydraulic servomotor (7) being controlled by the steering valve (5); and having an electric servomotor (10) for actuating the output member (8), wherein the electric servomotor (10) and the steering spindle (2) act upon a common rotating member (11) between the first torsion element (6) and the rotary slide valve or rotary piston (4).
2. The steering system as recited in Claim 1, wherein during operation of the steering system (1), the electric servomotor (10) and the hydraulic servomotor (7) simultaneously act upon the output member (8) of the steering gear (9).
3. The steering system as recited in one of Claims 1 or 2, wherein the electric servomotor (10) is controlled by an open-loop and/or closed-loop control device (12) of the steering system (1) or of the vehicle as a function of signals of an angle-of-rotation sensor (13), which measures an angle of rotation and/or an actuating torque at the steering handle (3).
4. The steering system as recited in one of Claims 1 through 3, wherein the electric servomotor (10) acts upon the

common rotating member (11) via a helical or worm gear (14).

5. The steering system as recited in one of Claims 1 through 4, wherein the common rotating member (11) is connected to the rotary slide valve or rotary piston (4) of the steering valve (5) via a coupling (15).
6. The steering system as recited in one of Claims 1 through 5, wherein the hydraulic servomotor (7) has a working piston (17) actuated by a screw (16), the screw (16) being connected to the rotary slide valve or rotary piston (4) of the steering valve (5) in a rotatably fixed manner, via a second torsion element (18).
7. The steering system as recited in Claim 6, wherein the flow of pressurized media into the working chambers of the hydraulic servomotor (7) is controlled as a function of the torsion of the second torsion element (18).
8. The steering system as recited in one of Claims 1 through 7, wherein in an automatic tracking mode of the steering system (1) or in a driver-assistance mode of the steering system (1), the common rotating member (11) is actuated exclusively by the electric servomotor (10).
9. The steering system as recited in one of Claims 1 through 8, wherein in the event of a failure of the hydraulic servomotor (7), the output member (8) of the steering gear (9) is actuated by the steering spindle (2) and by the electric servomotor (10).
10. The steering system as recited in one of Claims 1 through 9, wherein the electric servomotor (10) and/or the worm gear or helical gear (14) between the electric servomotor

(10) and the common rotating member (11) may be overridden by manipulating the steering handle (3).

11. The steering system as recited in one of Claims 1 through 10, wherein in the event of failure of the electric servomotor (10), the steering valve (5) and the hydraulic servomotor (7) may be actuated by the steering handle (3), the first torsion element (6) being bypassed by a driving element (19) between the steering spindle (2) and the common rotating member (11).
12. The steering system as recited in one of Claims 1 through 11, wherein a housing (20) of the electric servomotor (10) is fixed to a housing (21) of the steering gear (9).
13. The steering system as recited in one of Claims 6 through 12, wherein the second torsion element (18) is torsionally stiffer than the first torsion element (6).
14. The steering system as recited in one of Claims 1 through 13, wherein the hydraulic servomotor (7) is used in a hydraulically assisted rack-and-pinion steering system.
15. The steering system as recited in one of Claims 1 through 14, wherein the steering system (1) is used in a commercial vehicle.
16. The steering system as recited in one of Claims 1 through 15, wherein the electric servomotor (10), the common rotating member (11), the hydraulic servomotor (7), the first and second torsion elements (6, 18), the steering valve (5), and the output member (8) are integrated in a steering actuator (29).